

PCE - 7/21/04

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8-4-04CLAIM AMENDMENTS

Claim 1. (Canceled)

Claim 2. (Previously Presented) A microfluidic device according to Claim 3, wherein said collar has its inner surface aligned with the inner surface of said opening and a thickness of from about 0.05 to 0.5 mm thick extending away from said inner surface.

Claim 3. (Amended) A microfluidic device comprising:

a substrate having a planar surface having and at least one microstructure microfluidic unit formed thereon therein, each microfluidic unit having at least one reservoir with a plurality of an openings opening in said surface of microstructures and at least a portion of such that said openings opening is surrounded by a collar in relief, and wherein said collar is covered with a lid of a conformable material.

Claim 4. (Canceled)

Claim 5. (Previously Presented) A microfluidic device according to Claim 3 produced by plastic molding.

Claim 6. (Amended) A microfluidic device according to claim 3 wherein said at least one microfluidic unit comprises one or more operational units each comprising a substrate having a planar surface, comprising at least two reservoirs connected by at least one microchannel in said substrate, wherein

a plurality of each of such reservoirs having openings in said surface, has said opening in said surface and a volume said reservoirs having volumes in the range of about 10 nl to 10 µl;

and wherein each said at least a portion of said openings opening has surrounded by a collar in relief, having an inner surface aligned with the an inner surface of said reservoir the surrounded opening, said and the collar having a height in the range of about 0.1 to 1 mm and a thickness of from about 0.05 to 0.5 mm thick extending away from said inner surface.

Claim 7. (Canceled)